DOCUMENT RESUME

ED 134 077 HE 008 544

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TITLE	A Comparison of Official Transcripts and Operational Records for Fall, 1975 University of Minnesota Registered Students. OSA Research Bulletin, v17 n7.
INSTITUTION	Minnesota Univ., Minneapolis. Office for Student Affairs.
PUB DATE	31 Jan 77
NOTE	23p.
AVAILABLE FROM	University of Minnesota, Office for Student Affairs, Minneapolis, Minnesota
EDRS PRICE	MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS	*Academic Achievement; *Academic Records; Comparative Analysis; Correlation; *Credits; Grade Point Average; *Grades (Scholastic); Higher Education; Recordkeeping; State Universities; Statistical Data; Student Evaluation; *Student Records
IDENTIFIERS	*University of Minnesota

ABSTRACT

This study was undertaken to provide data for a review of the University of Minnesota's two-transcript system, which maintains an operational record (including all work taken) and an official transcript (record of accomplishment only) for each student. The sample included all students registered in fall 1975. Actual differences between the two records are summarized. The primary difference is one of definition; symbols of incomplete, no credit, and withdrawal are included only on the operational record. In fall, 1975, only about 11 percent of all grades fell into these categories, and there were considerable differences across units. Analysis of the data suggests that grade-point average and a coefficient of completion are different measures of student performance. It is suggested that the data presented in this report should be supplemented by other information before a final decision is made on the status of the two-transcript system at the university. (Author/LBH)

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ED134077

OSA Research Bulletin
Office for Student Affairs
University of Minnesota
Volume 17
Number 7
Date January 31, 1977

OSA

A Comparison of Official Transcripts and Operational Records for Fall, 1975 University of Minnesota Registered Students

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Abstract

This study was undertaken to provide data for a review of the University's two-transcript system, which maintains an operational record (including all work taken) and an official transcript (record of accomplishment only) for each student. The sample included all students registered in Fall, 1975. Actual differences between the two records are summarized. The primary difference is one of definition; symbols of incomplete, no credit, and withdrawal are included only on the operational record. In Fall, 1975 only about 11% of all grades fell into these categories, and there were considerable differences across units. "Similar" operational records and official transcripts were defined as those in which 80% or more of the work attempted was completed, that is, a coefficient of completion (CC) of .80 or higher. In most units, the majority of students have "similar" transcripts; in some, however, one student in every three or four has a CC of less than .80. Given the relatively large number of "dissimilar" transcripts, correlations between GPA and CC were calculated to determine the relationship of these two indices. For most units, the trend is a positive one, but the correlations are not very high, which suggests that GPA and CC are to some extent different measures of student performance. The authors suggest that the data presented in this report should be supplemented by other information before a final decision is made on the status of the two-transcript system at the University.

HE008514

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Acknowledgements

The authors would like to thank the following for their assistance during the course of this project: Charles Liesenfelt and James Preus, Office of Admissions and Records, for assistance in formulating the research plan and for many helpful comments along the way; the Administrative Data Processing Department for help in obtaining the data from their computer files; the University Senate Committee on Academic Standing and Relations and the Twin Cities Campus Assembly Committee on Academic Standing, Norman Kerr (Chairperson), for their reactions to our preliminary results; and Patt Kelly for preparation of the final manuscript.

This study was undertaken as the groundwork of a project to evaluate the effects of the University's two-transcript system, in which two academic records are maintained for each student. The operational record is the student's complete academic history, including both successfully and unsuccessfully completed coursework. It is intended primarily for use within the University. The official transcript is a record of accomplishment only and excludes courses in which a symbol of incomplete (I), no credit (N), or withdrawal (W) was recorded. The official transcript is the document sent to prospective employers, graduate and professional schools, and others as requested by the student.

In recent months, a University committee has been studying the impact of the system, which was originally designed to express the view that the University's role as a certifier of student performance should be fulfilled by making a positive statement. Thus, "the official transcript should be a chronological record of accomplishment, of standards met, not a detailing of the various ways a student did not earn credit (Minutes, University of Minnesota Twin Cities Campus Assembly, 1971-72, No. 3, April 27, 1972)." The basic issue now is whether or not the system should be continued. Before making this decision, however, data are needed to answer questions about the effect of the system on students, prospective graduate and professional schools, and others.

The present study examines the extent of differences between the two transcripts for individual students and also the pattern of differences across the various teaching units at the University. In addition, the relationship between the coefficient of completion (CC), which is defined as the total number of credits successfully completed as a proportion of

the total number of credits attempted, and the grade point average (GPA), on the usual four-point scale, is of interest, since both indices are used to summarize a student's academic performance.

The following questions were formulated by the researchers to guide the study. First, how extensive are the differences between the operational record and the official transcript? How do the number of credits of I, N, and W received relate to the total number of credits for which grades are awarded? How is the CC distributed in the student population?

Second, how are I's, N's, and W's distributed across students? What is the distribution of the number of I's, N's, and W's per student? How are the average number of credits and symbols of I, N, and W per quarter distributed?

Third, what is the relationship between GPA and CC? What is the Pearson product-moment correlation between GPA and CC? Do students with high GPAs have high CCs?

Method

Student records at the University of Minnesota are maintained by the Records Office and stored in the computer files of the Administrative Data Processing Department. The data in official transcripts can be generated by eliminating from the computerized operational record all coursework with symbols of I, N, and W. Since both data gathering and analysis were computerized, the entire population of students registered at the University in Fall Quarter, 1975 could be studied. This yielded a total of 55,579 students distributed across the various campus and teaching units.

The following information was extracted from each student's record:

1. Teaching unit of the University in which the student was registered (e.g., Liberal Arts, Technology, Morris).
2. Number of Fall, 1975 grades or supplementary symbols in each category (A, B, C, D, F, I, N, S, W, and P).[1]
3. Number of Fall, 1975 credits in each category.
4. Number of cumulative grades, up to and including Fall, 1975, in each category.
5. Number of cumulative credits, up to and including Fall, 1975, in each category.
6. Total number of quarters registered at the University, including Fall, 1975.

From these data, each student's CC (Fall, 1975 and cumulative), GPA (Fall, 1975 and cumulative), and average number of I's, N's, and W's per quarter were computed.

I's are treated somewhat differently than other "grades" in the computerized record-keeping system; a brief summary of the differences will assist in keeping the results in the following section in perspective. For most units, the I is assigned as a temporary symbol. If the I is completed during the student's next quarter of attendance, the appropriate permanent grade is added. If the I is not made up, it is changed after the student's next quarter of registration to an N. The exceptions to this policy include the following units: Graduate School, Dentistry, Medical School (Twin Cities and Duluth), Law School Veterinary Medicine, Public Health, the Doctor of Pharmacy program, and the graduate level programs in

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[1]Other grades granted (e.g., R, O, X) were excluded from the analyses.

Education (Twin Cities and Duluth). In all of these colleges, I's may remain on the student's record permanently. In Crookston, I's lapse to W's.

The data for this report were drawn from the computer files in mid-March, 1976, before the computer program changing I's to N's was run. Thus, the report would include grades reported through at least the end of February, 1976, whether they were late course grades or changes of grade; all I's given in Fall, 1975 would be included unless changed to another grade before the end of February, 1976.

Results

The differences between the operational and the official transcripts were examined in two ways: (a) the total number of I, N, and W credits received relative to all other credits (for all students), and (b) the distribution of the CC in the student population.

Table 1 shows the number of non-passing credits (I, N, and W), as well as the number of passing credits given within each teaching unit of the University in Fall, 1975. Overall, there are 16.2% non-passing credits; however, the range across colleges is from 1.3 to 31.8%. One interesting point is that for most units relating to the medical profession (including Veterinary Medicine and Duluth campus units, but excluding Dentistry and Public Health), the proportion of non-passing credits is quite low, with a range from 1.3 to 7.9%. In contrast, the General College records show a very high proportion, 31.8%, of non-passing credits. (This is not, of course, surprising since General College is an open-admission institution and enrolls students with a much broader range of academic aptitude than other units.) All other units of the University show a moderate proportion

Table 1
Number of I, N, W, and Other Credits Received Fall, 1975 by Unit

Unit	Non-passing credits: I N	I %	N N	N %	W N	W %	Subtotal N	Subtotal %	Passing credits N	Passing credits %	Total N	Total %
Crookston	555	4.8	0	.0	621	5.4	1,176	10.2	10,346	89.8	11,522	100.0
Duluth												
Business & Economics	231	2.1	590	5.4	639	5.8	1,460	13.3	9,483	86.7	10,943	100.0
Dental Hygiene	4	.4	55	5.8	0	.0	59	6.2	898	93.8	957	100.0
Education	244	1.9	355	2.8	487	3.9	1,086	8.6	11,545	91.4	12,631	100.0
Fine Arts	119	2.7	207	4.7	240	5.4	566	12.8	3,846	87.2	4,412	100.0
Letters & Sciences	892	2.0	2,517	5.6	2,612	5.8	6,021	13.3	39,122	86.7	45,143	100.0
Medicine	92	6.5	1	.1	0	.0	93	6.5	1,330	93.5	1,423	100.0
Social Development	31	3.5	33	3.8	66	7.5	130	14.8	746	85.2	876	100.0
Morris	0	.0	4,820	18.7	3	.0	4,823	18.7	21,011	81.3	25,834	100.0
Twin Cities												
Agriculture	1,282	5.3	1,363	5.7	1,046	4.4	3,691	15.4	20,343	84.5	24,034	99.9
Biological Sciences	315	4.5	249	3.6	392	5.6	956	13.8	5,998	86.3	6,954	100.1
Business Administration	706	3.3	887	4.2	1,184	5.6	2,777	13.0	18,514	87.0	21,291	100.0
Education	1,429	5.4	405	1.5	901	3.4	2,735	10.2	23,964	89.8	26,699	100.0
Forestry	207	2.2	384	4.1	198	2.1	789	8.4	8,581	91.6	9,370	100.0
General College	3,115	8.6	6,001	16.5	2,448	6.7	11,564	31.8	24,789	68.2	36 353	100.0
Graduate School	6,248	11.9	453	.9	2,432	4.6	9,133	17.3	43,522	82.7	52,655	100.0
Health Sciences												
Dental Hygiene	39	1.0	111	2.8	104	2.7	254	6.5	3,656	93.5	3,910	100.0
Dentistry	1,192	10.2	21	.2	66	.6	1,279	11.0	10,362	89.0	11,641	100.0
Medical School	325	1.8	57	.3	114	.6	496	2.8	17,206	97.2	17,702	100.0
Medical Technology	31	1.8	12	.7	24	1.4	67	4.0	1,628	96.1	1,695	100.1
Mortuary Science	45	3.5	18	1.4	38	3.0	101	7.9	1,182	92.1	1,283	100.0
Nursing	114	1.7	115	1.7	68	1.0	297	4.4	6,403	95.6	6,700	100.0
Occupational Therapy	3	.3	9	.8	3	.3	15	1.3	1,127	98.7	1,142	100.0
Pharmacy	157	2.7	152	2.7	70	1.2	379	6.6	5,353	93.4	5,732	100.0
Physical Therapy	12	1.2	12	1.2	0	.0	24	2.5	948	97.5	972	100.0
Public Health	389	11.3	31	.9	41	1.2	461	13.3	2,995	86.7	3,456	100.0
Home Economics	878	5.4	757	4.7	864	5.3	2,499	15.4	13,681	84.6	16,180	100.0
Law School	70	1.7	30	.7	631	15.1	731	17.5	3,452	82.5	4,183	100.0
Liberal Arts	11,951	5.8	11,313	5.4	16,191	7.8	39,455	19.1	167,646	81.0	207,101	100.1
Technology	1,645	3.2	3,371	6.5	3,134	6.0	8,150	15.7	43,765	84.3	51,915	100.0
University College	208	7.9	80	3.0	142	5.4	430	16.3	2,207	83.7	2,631	100.0
Veterinary Medicine	145	2.5	0	.0	30	.5	175	3.0	5,749	97.1	5,924	100.1
Waseca	0	.0	838	8.9	654	6.9	1,492	15.8	7,929	84.2	9,421	100.0

Note. The large proportion of N's for Morris are due to an error in computerized record keeping and represent students with blank grades. Also, Morris and Waseca do not assign I's.

of non-passing credits, from 8.6 to 19.1%. Relative to other Health Sciences units, Dentistry and Public Health show high proportions of I credits (10.2 and 11.3% respectively).

The number of I's, N's, and W's received relative to all grades awarded was also studied, but since the results were essentially the same as for the credit analyses, we have not reported them here unless they add something new to the results. One instance where the grade analysis is useful is relative to the previously-reported high proportion of I credits in Dentistry. The analysis of the grade data found a low proportion of I's in that unit. In Dentistry, there are 10,362 passing credits and 3,454 passing grades; thus, on the average, the number of passing credits per course was 3.0. On the other hand, there were 1,192 credits of I and 236 I's, giving, on the average, 5.0 credits per I. This indicates that in Dentistry the courses left incomplete are most likely those which require a large amount of effort, as judged by the number of credits they carry. An alternative explanation might be that these high-credit courses are practicum courses, for which instructors might be slow in reporting grades.

Table 2 shows the distribution of Fall, 1975 CCs for students in each unit. Once again, the Health Science units show higher percentages of students than other units in the highest range of CC (.81 to 1.00). However, Public Health among Health Science units and the Law School and Graduate School among the rest show very low percentages in the highest ranges of CC; for these units high percentages in the lowest range of CC (.00 to .10) were observed.

From Table 1 we note that 17.5% of Law credits are non-passing, yet 35.8% of the students in Law School completed from 0 to 10% of the credits

Table 2
Percentage of Students at Various Quarterly Coefficient of Completion Levels by Unit

		Quarterly coefficient of completion										
Unit	N	.91-1.00	.81-.90	.71-.80	.61-.70	.51-.60	.41-.50	.31-.40	.21-.30	.11-.20	.00-.10	Total
Crookston	1,012	69.2	5.8	5.6	2.4	1.7	2.0	.3	.1	.3	12.6	100.0
Duluth												
Business & Economics	838	66.6	3.0	10.5	6.3	2.0	2.6	1.6	.4	.7	6.3	100.0
Dental Hygiene	75	88.0	.0	.0	5.3	4.0	.0	.0	.0	.0	2.7	100.0
Education	957	78.3	2.5	6.2	4.1	1.6	1.0	1.0	.5	.2	4.6	100.0
Fine Arts	361	67.9	3.9	8.3	5.5	1.7	2.2	.8	.3	1.1	8.3	100.0
Letters & Sciences	3,622	70.8	2.7	7.4	5.3	2.8	1.7	1.4	1.2	.2	6.5	100.0
Medicine	71	64.8	25.4	1.4	4.2	2.8	.0	.0	.0	.0	1.4	100.0
Social Development	67	65.7	.0	13.4	9.0	.0	3.0	.0	.0	.0	9.0	100.1
Morris	1,627	62.8	1.8	8.2	10.0	1.8	2.8	2.6	1.3	.4	8.4	100.1
Twin Cities												
Agriculture	1,798	66.0	1.7	8.3	6.8	2.1	2.7	2.1	1.0	.2	9.2	100.1
Biological Sciences	574	70.6	3.1	5.4	5.9	2.6	2.6	2.1	.5	.5	6.6	99.9
Business Administration	1,656	70.1	.7	10.1	6.2	.7	3.0	1.9	.5	.0	6.7	99.9
Education	2,523	75.7	2.8	4.9	2.8	1.0	1.8	.9	.6	.3	9.2	100.0
Forestry	583	78.9	2.2	5.7	3.8	2.1	1.5	1.0	1.0	.2	3.6	100.0
General College	3,069	47.8	4.1	6.0	10.3	2.4	3.7	4.7	1.9	.5	18.5	99.9
Graduate School	7,999	52.2	1.3	3.6	4.9	1.8	4.0	1.7	.6	.3	29.8	100.2
Health Sciences												
Dental Hygiene	288	80.6	6.9	4.5	2.8	1.4	.7	.7	.7	.0	1.7	100.0
Dentistry	570	74.9	4.7	5.8	1.2	1.8	2.5	4.9	3.5	.2	.5	100.0
Medical School	1,568	82.3	1.3	.4	.2	.0	1.1	.3	.6	.3	13.5	100.0
Medical Technology	134	88.8	.7	4.5	.7	.0	1.5	.0	.0	.0	3.7	99.9
Mortuary Science	89	84.3	.0	4.5	2.2	.0	2.2	.0	1.1	.0	5.6	99.9
Nursing	433	87.5	3.7	3.2	1.6	.7	.5	.2	.0	.5	2.1	100.0
Occupational Therapy	72	93.1	6.9	.0	.0	.0	.0	.0	.0	.0	.0	100.0
Pharmacy	413	70.9	7.5	2.9	1.9	1.9	1.5	.7	1.0	.0	11.6	99.9
Physical Therapy	63	87.3	4.8	7.9	.0	.0	.0	.0	.0	.0	.0	100.0
Public Health	350	58.9	6.6	9.1	4.6	2.9	1.1	.9	.6	.3	15.1	100.1
Home Economics	1,302	64.9	2.3	8.4	6.2	3.6	3.1	1.5	.7	.5	8.7	99.9
Law School	717	43.7	2.5	6.8	5.7	2.0	1.8	1.0	.7	.0	35.8	100.0
Liberal Arts	17,429	62.1	1.3	7.7	9.3	1.9	3.3	2.9	1.1	.3	10.2	100.1
Technology	4,067	66.9	1.3	9.8	6.5	2.4	2.3	2.2	1.2	.2	8.4	100.2
University College	245	69.0	1.2	3.3	2.9	2.0	4.1	1.6	.4	1.2	14.3	100.0
Veterinary Medicine	295	90.8	2.7	1.4	3.1	1.7	.0	.0	.0	.0	.3	100.0
Waseca	712	72.6	2.5	4.8	3.7	2.0	2.1	1.4	1.1	.6	9.3	100.1

Note. The calculation of quarterly coefficient of completion includes credits of I.

they attempted. If the 35.8% of the students completing a very small proportion of their credits were taking a substantial number of credits on the average, the total non-passing credits could not be a mere 17.5% for all Law students--it should be much higher. Therefore, the most reasonable conclusion from these data is that Law students in the lowest range of CC attempt relatively few credits on the average. A similar observation holds for the Graduate School and for Public Health. The only difference is that in Law School the predominant non-passing grade is W, whereas in Public Health and Graduate School it is the I grade.

Extensive distributions of numbers of I, N, and W credits were generated for each unit; these are summarized in Table 3. The combinations of 1 to 5 credits and 6 or more credits were considered adequate to describe the overall trends in all the tables summarized. The distributions are fairly regular except for I credits in Dentistry; of the 24% of Dentistry students receiving any I credits at all, 19.1% received 6 or more. In conjunction with the observation from Table 2 that 74.9% have CCs between .91 and 1.00, it appears that those who leave incomplete coursework are likely to leave a lot of it incomplete (as judged by 6 or more I credits).

The previous observation regarding Law is supported by the 17.2% of the students receiving from 1 to 5 W credits and only a small percentage (3.9%) receiving 6 or more. It can be surmised that the course withdrawal rate per student is small and that the remaining work is nearly always completed (also note the low percentage of I and N credits in Law).

Table 4 shows the distributions of average number of credits of I, N, and W over all of the units combined. Most students have, on the average, less than 1 credit per quarter in each non-passing grade category.

Table 3
Percentage of Students with Various Numbers of I, N, and W Credits in Fall, 1975 by Unit

Unit	N	Credits of I			Credits of N			Credits of W		
		0	1-5	6	0	1-5	6	0	1-5	6
Crookston	1,012	86.3	11.2	2.6	100.0	.0	.0	83.7	13.8	2.5
Duluth										
Business & Economics	838	92.4	7.2	.5	85.1	12.4	2.5	83.5	13.7	2.7
Dental Hygiene	75	98.7	1.3	.0	89.3	8.0	2.7	100.0	.0	.0
Education	957	94.4	4.9	.7	92.4	6.1	1.6	88.2	9.8	2.0
Fine Arts	361	90.9	8.6	.6	86.4	11.4	2.2	83.4	14.1	2.5
Letters & Sciences	3,622	93.4	6.2	.4	87.2	9.3	3.5	85.2	12.0	2.8
Medicine	71	60.6	32.4	7.0	98.6	1.4	.0	100.0	.0	.0
Social Development	67	89.6	10.5	.0	89.6	10.5	.0	80.6	14.9	4.5
Morris	1,627	100.0	.0	.0	59.6	24.3	16.2	99.9	.1	.0
Twin Cities										
Agriculture	1,798	86.0	11.2	2.7	86.7	10.2	3.1	87.9	10.7	1.4
Biological Sciences	574	87.5	11.0	1.6	92.0	6.3	1.7	85.2	12.4	2.4
Business Administration	1,656	90.6	8.1	1.3	89.2	8.7	2.1	84.3	13.9	1.8
Education	2,523	86.5	10.8	2.7	96.2	3.3	.6	92.1	6.6	1.3
Forestry	583	93.1	5.3	1.5	89.2	7.6	3.3	93.0	6.4	.7
General College	3,069	79.1	16.8	4.1	71.1	17.2	11.7	85.4	11.0	3.6
Graduate School	7,999	81.3	15.5	3.3	98.7	1.4	.0	93.1	6.9	.0
Health Sciences										
Dental Hygiene	288	94.8	5.2	.0	89.2	9.0	1.7	93.8	4.2	2.1
Dentistry	570	76.0	4.9	19.1	98.4	1.4	.2	98.8	.7	.5
Medical School	1,568	95.6	2.6	1.8	98.9	1.0	.1	99.0	.5	.5
Medical Technology	134	94.8	5.2	.0	97.8	2.2	.0	97.0	2.2	.8
Mortuary Science	89	92.1	4.5	3.4	95.5	4.5	.0	92.1	6.7	1.1
Nursing	433	91.5	7.6	.9	94.5	4.2	1.4	95.8	3.7	.5
Occupational Therapy	72	98.6	1.4	.0	95.8	4.2	.0	98.6	1.4	.0
Pharmacy	413	88.6	10.9	.5	92.7	4.4	2.9	94.9	4.6	.5
Physical Therapy	63	93.7	6.4	.0	93.7	6.4	.0	100.0	.0	.0
Public Health	350	72.9	21.4	5.7	97.7	2.0	.3	96.6	3.4	.0
Home Economics	1,302	85.7	12.2	2.1	88.6	9.2	2.2	87.0	10.6	2.4
Law School	717	97.4	2.4	.3	99.0	.8	.1	79.9	17.2	3.9
Liberal Arts	17,429	86.1	11.2	2.7	87.6	10.0	2.4	82.0	15.5	2.5
Technology	4,067	91.2	7.0	1.9	85.5	10.2	4.2	84.7	12.7	2.7
University College	245	86.5	8.2	5.3	92.7	6.1	1.2	88.2	9.4	2.5
Veterinary Medicine	295	93.2	2.0	4.8	100.0	.0	.0	96.6	3.4	.0
Waseca	712	100.0	.0	.0	78.8	13.1	8.2	89.8	4.8	5.5

Note. The large proportion of N's for Morris are due to an error in computerized record keeping and represent students with blank grades. Also, Morris and Waseca do not assign I's.

Table 4
Distribution of Average Credits of I, N, and W Per Quarter

Average credits per quarter	I		N		W	
	N	%	N	%	N	%
0 - .9	48,277	86.8	43,446	78.1	45,544	81.9
1.0 - 1.9	3,951	7.1	4,726	8.5	5,299	9.5
2.0 - 2.9	2,119	3.8	3,186	5.7	3,098	5.6
3.0 - 3.9	442	.8	1,212	2.2	655	1.2
4.0 - 4.9	447	.8	968	1.7	568	1.0
5.0 - 5.9	194	.4	581	1.0	298	.5
6.0 - 6.9	85	.2	303	.5	74	.1
7.0 - 7.9	43	.1	434	.8	49	.1
8.0 - 8.9	39	.1	241	.4	20	-
9.0 - 9.9	24	-	130	.2	15	-
10.0 - 10.9	7	-	184	.3	12	-
11.0 - 11.9	3	-	52	.1	5	-
12.0 - 12.9	4	-	40	.1	-	-
13.0 - 13.9	4	-	47	.1	2	-
14.0 - 14.9	-	-	30	.1	-	-
15.0 - 15.9	-	-	50	.1	-	-
16.0 - 18.9	-	-	9	-	-	-

Table 5 shows the Pearson product-moment correlations between GPA and CC. The number of students on whom the correlations are based is smaller than the total number in each unit for two reasons. One, when CC is zero, there are no passing grades and therefore GPA is undefined. Two, GPA is also undefined when the only passing grades are S or P. Also, in calculating CC, the I grade was omitted in all of those units where I's become N's after the student's next quarter of residence; if I's had been included, a potential source of bias would have been introduced since students would have varying numbers of I's depending on the number of quarters at the University. Dentistry shows a negative correlation, -.27, between GPA and CC. This points to the trend in this unit that more incomplete coursework accompanies higher GPA. This observation, with the earlier one that students in Dentistry who leave any incomplete credits are most likely to leave a large number of incomplete credits, discloses a distortion of the meaning of the GPA index. Those who leave a lot of incomplete credits are likely to get a relatively high GPA in work they do complete. Correlations between GPA and CC in other units vary from near zero to as high as .60.

For most units, it is difficult to say that there is a strong correlation between GPA and CC, even though the observed correlations may be statistically significant. A correlation of .30, for example, accounts for less than 10% common variance. It can be concluded from these data that GPA and CC are two different dimensions of performance at the University of Minnesota.

Table 5
Correlation Between Cumulative Grade Point Average
and Cumulative Coefficient of Completion by Unit

Unit	N	r
Crookston	878	.60
Duluth		
Business & Economics	818	.38
Dental Hygiene	75	.12
Education	945	.36
Fine Arts	346	.25
Leters & Sciences	3,522	.38
Medicine	21	.64
Social Development	62	.45
Morris	1,591	.36
Twin Cities		
Agriculture	1,760	.41
Biological Sciences	566	.36
Business Administration	1,639	.41
Education	2,486	.30
Forestry	575	.40
General College	2,863	.36
Graduate School	5,326	.06
Health Sciences		
Dental Hygiene	288	.37
Dentistry	555	-.27
Medical School	261	.06
Medical Technology	133	.08
Mortuary Science	89	.32
Nursing	431	.24
Occupational Therapy	72	.32
Pharmacy	391	.37
Physical Therapy	63	.18
Public Health	294	.20
Home Economics	1,276	.35
Law School	458	.13
Liberal Arts	17,003	.38
Technology	3,980	.40
University College	220	.35
Veterinary Medicine	294	.02
Waseca	685	.43

Note. The I grade is omitted from the calculation of the CC for all units in which I's lapse to N's.

Discussion and Conclusions

One of the purposes of this study was the determination of the extent of the differences between the official transcript and operational record. In most University units, only about 11% (approximate median) of the actual credits attempted in a given quarter would not show up on the official transcript; these are the total of I, N, and W credits. It was shown that this proportion varies considerably across colleges. Thus, reviewers of General College official transcripts familiar with these data (or using their own pre-conceptions) might infer that much information does not appear. With Occupational Therapy transcripts, the reverse inference might be drawn, that is, that the official transcript is an almost perfect replica of the operational record.

These differences, however, are overall and students may differ among themselves. The information presented on the distribution of CC speaks to this issue. In all units except the Law School, the majority of students complete 80% or more of the work they attempt (CC = .80 to 1.00). If we use this 80% figure, somewhat arbitrarily, as a point above which official transcripts and operational records are considered to be essentially similar and below which they are dissimilar we may begin to understand the impact of the two-transcript system. Using this criterion, we see that in some units one student in every three or four has an official transcript that is "different" from the operational record (see Table 6).

Given the relatively large number of dissimilar transcripts, we next studied whether the GPA, as an indicator of quality of work, is related in any consistent way to CC. The correlational data presented in Table 5 suggest the relationship is not very strong. In most units, there is a

Table 6

Percentage of Students with Various Degrees of Similarity Between Operational Records and Official Transcripts

Unit	N	Identical (CC=1.0)	Very similar (CC=.90-.99)	Somewhat similar (CC=.80-.89)	Dissimilar (CC< .80)
Crookston	1,012	15.7%	7.4%	17.4%	59.5%
Duluth					
Business & Economics	838	18.3%	16.7%	30.1%	35.0%
Dental Hygiene	75	9.3%	10.7%	22.7%	57.3%
Education	957	14.8%	13.7%	33.3%	38.1%
Fine Arts	361	20.2%	13.9%	36.3%	29.6%
Letters & Sciences	3,622	19.5%	16.0%	27.5%	37.0%
Medicine	71	.0%	4.2%	15.5%	80.3%
Social Development	67	17.9%	13.4%	35.8%	32.8%
Morris	1,627	.9%	2.8%	16.3%	80.0%
Twin Cities					
Agriculture	1,798	33.9%	29.4%	17.0%	19.7%
Biological Sciences	574	26.5%	51.6%	11.5%	10.5%
Business Administration	1,656	20.7%	48.7%	18.1%	12.5%
Education	2,523	41.7%	41.4%	10.1%	6.7%
Forestry	583	41.3%	35.3%	12.7%	10.6%
General College	3,069	27.2%	18.2%	15.9%	38.7%
Graduate School	7,999	50.1%	39.8%	6.1%	4.0%
Health Sciences					
Dental Hygiene	288	62.2%	23.6%	9.4%	4.9%
Dentistry	570	58.2%	40.2%	1.6%	.0%
Medical School	1,568	65.3%	31.1%	2.5%	1.1%
Medical Technology	134	58.2%	36.6%	3.0%	2.2%
Mortuary Science	89	56.2%	29.2%	6.7%	7.9%
Nursing	433	48.0%	44.6%	5.1%	2.3%
Occupational Therapy	72	52.8%	43.1%	4.2%	0.0%
Pharmacy	413	49.6%	38.3%	8.5%	3.6%
Physical Therapy	63	65.1%	33.3%	1.6%	.0%
Public Health	350	66.6%	24.9%	4.9%	3.7%
Home Economics	1,302	32.3%	34.6%	14.3%	18.8%
Law School	717	25.9%	46.3%	6.3%	21.5%
Liberal Arts	17,429	32.6%	27.0%	17.2%	23.2%
Technology	4,067	31.5%	33.0%	17.4%	18.1%
University College	245	23.7%	38.0%	22.0%	16.3%
Veterinary Medicine	295	67.5%	31.2%	1.0%	.3%
Waseca	712	21.2%	10.7%	26.5%	41.6%

Note. Cumulative coefficient of completion is calculated excluding the grade of incomplete (I).

tendency for GPA and CC to be positively correlated (i.e., the student with a high GPA tends to have a high CC). The generally low correlations, however, indicate that many students with low GPAs have high CCs and vice versa. These data suggest that GPA and CC are two different dimensions of performance. Whether or not it is "better" to omit one of these (CC) from the official record of a student's attendance at the University is a moot question.

That data presented in this report are factual, but much of the discussion of the two-transcript system centers, appropriately, on more subjective concerns. One such area of concern is the reaction of students, faculty, staff, and others toward the two-transcript system. Many views have been expressed ranging from the highly negative to the highly positive. But only a systematic study using interviews or surveys could give an overall picture. Questions such a survey could answer include:

1. Do students consider the system, as a whole, to be a good one? Do faculty? Do staff?
2. Do any or all of these subgroups believe the system is consistently biased either for or against certain types of students?
3. Would these groups prefer a return to the "old" system, maintenance of the current system, or an alteration of the present system?

Another dimension relates to the use of the official transcript versus the operational record outside the University in a variety of settings where decisions are made about individuals. Among these are professional and graduate school admissions and job applications. Some questions which might be considered in this regard are listed below:

1. Does knowing that a two-transcript system exists have an effect on individuals reviewing transcripts?
2. Are different decisions (e.g., admit or hold or reject hire or not hire) made for the same student depending on which transcript is reviewed? And, if so, which decision is more valid?

Only an experimental study could answer these questions.

The final dimension is that of the University's philosophy of education and its view of itself as a certifier of student performance. The current system grew out of such concerns. Any change to be made in the system now must, at least in part, be based on a reassessment of the validity of those values.